

Serial No. - 09/902,552E  
Art Unit - 2877



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## CONCLUSION

Applicants respectfully submit that, in view of the above amendments and remarks, the application is now in condition for allowance. The Examiner is encouraged to contact the undersigned to resolve efficiently any formal matters or to discuss any aspects of the application or of this response. Otherwise, early notification of allowable subject matter is respectfully solicited.

Respectfully submitted,

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Appendix A

VERSION OF CLAIMS  
WITH MARKINGS TO SHOW CHANGES MADE

TC 2-001 10/11/2011

In the Claims:

8. (Amended) A method of analyzing structural stress as claimed in claim [4] 5 wherein said selected cross section of said structure is defined by a thickness  $t$  and includes a partial thickness fatigue crack extending a distance  $t_1$  from a surface of said localized region, and wherein said method comprises:

determining said first and second components  $\sigma_M$ ,  $\sigma_B$  of said structural stress  $\sigma_s$  in said localized region by performing respective operations having results substantially equivalent to respective results of four equations, where a first equation of said four equations defines a sub-component  $\sigma_m'$  of the structural stress  $\sigma_s$ , a second equation of said four equations defines a force equilibrium condition, a third equation of said four equations defines a moment equilibrium condition, and a fourth equation of said four equations defines a stress continuity condition.

13. (Amended) A method of analyzing structural stress as claimed in claim [4] 5 wherein said selected cross section of said structure is characterized by a thickness  $t$  and defines a non-monotonic through thickness stress distribution characterized by a minimum axial stress along a secondary axis lying in said localized region a distance  $t_2$  below a surface of said structure, and wherein said method comprises:

determining said first and second components  $\sigma_M$ ,  $\sigma_B$  of said structural stress  $\sigma_s$  in said localized region by performing an operations having results substantially equivalent to a result of solving simultaneously first and second equations with two unknowns,  $\sigma_M$  and  $\sigma_B$ .